

### REMARKS

Claims 8-16 are pending in the present application. Favorable reconsideration of the patentability of the claims 8-16 in view of the present Response is respectfully solicited. No new issues are raised by way of the present Response. It is respectfully submitted that the Response places the application in condition for Allowance. Alternatively, the Response places the application in better condition for Appeal. The Examiner is therefore kindly requested to enter the Response into the Record.

### Office Action

The Office maintains the rejection of claims 8-16 as being unpatentable under 35 USC Section 103(a) over Saebo (US 2001/0025113) in view of Reaney (US 6,414,171).

The rejection is respectfully traversed.

The Examiner relies on the teaching of Reaney, at Col. 3, lls. 38-47, for the proposition that HCl and phosphoric acid are interchangeable as "neutralizing agents" with phosphoric acid being the preferred acid.

According to the Examiner, "[B]ased on this information in Reaney, it is unclear how applicants' can state that the use of phosphoric acid as a neutralizing agent was not suggested or taught."

At Col. 3, lls. 32-47, cited by the Examiner, Reaney describes that:

"After the reaction is complete, the mixture is cooled for separation of the reaction products and by-products. In a preferred embodiment, acid is added to the reaction mixture to hydrolyse the soaps and the reaction mixture is then cooled to between 120° C. and 80° C. **It is preferred to bring the pH of the contents of the reactor to pH 4 or less** through the addition of either a mineral or organic acid. **Acids that may be used include, but are not limited to, hydrochloric acid, sulfuric acid, phosphoric acid and citric acid.** It is found that the use of sulfuric and hydrochloric acid is problematic in that these strong acids may react chemically with the CLA during separation. The preferred embodiment of this invention involves the use of phosphoric acid or citric acid to hydrolyse the soaps. When phosphoric acid is used [as the acidifying agent], the **waste solution can be neutralized** and used as a surface-

applied fertilizer and there are **no disposal costs for discarding this product** (emphasis added)."

Thus, Reaney teaches acidifying the reaction mixture to a pH of 4 or less with phosphoric acid. Reaney teaches that phosphoric acid is preferred as the acid of choice for acidifying the reaction mixture to a pH of 4 or less, since the "waste solution" product of the reaction can be neutralized, and then either used as a fertilizer or disposed of with no costs.

Reaney thus does not disclose or suggest neutralizing the reaction product with phosphoric acid.

By way of comparison, Claims 8 and 16 (Independent claims), as well as the claims which depend therefrom, call for a process for producing CLA by.... **neutralizing** the saponification product with phosphoric acid.

The present invention has thus discovered that the neutralization of a saponification product of CLA lower alkyl esters with phosphoric acid provides excellent utilization of reactor capacity in the production of CLA. Reverse esterification after saponification is also minimized, advantageously resulting in few undesired secondary reaction products. See the specification at page 2, lls. 11-18. After neutralization with phosphoric acid, as called for by claims 8-16, a CLA product of high yield and purity is obtained, as shown in the Example.

The combination of Saebo and Reaney does not teach or suggest the claimed invention of the neutralization of the saponification product with phosphoric acid. The prior art teachings thus would not lead one of skill in the art to the process of claims 8-16 of the present invention.


It is therefore respectfully submitted that claims 8-16 are patentable over the combination of Saebo and Reaney. The Examiner is kindly requested to reconsider and withdraw the rejection.

Appl. No.: 10/523,728  
Response dated October 30, 2006  
Reply to Office action of July 28, 2006

The Examiner is kindly requested to enter and consider the Response.

Favorable reconsideration and a Notice of Allowance are therefore respectfully solicited.

Respectfully submitted,

  
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